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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/509,920 | 05/25/2005 | Philipp Stossel | 09931-00033-US | 2249 |

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| EXAMINER | |
|---|---|
| WILSON, MICHAEL H | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1794 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/509,920 | STOSSEL ET AL. | |
| | Examiner | Art Unit | |
| | MICHAEL WILSON | 1794 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *5-15 and 17-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20041004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Group I in the reply filed on 29 May, 2008 amending claims 1-4 and withdrawing claims 5-15 and 17-20 is acknowledged. The traversal is on the ground(s) that the Office has not carried forward its burden of proof to establish distinctness, as defined in MPEP 803. This is not found persuasive distinctness is not germane to a restriction of a National Stage application of a PCT, see MPEP 1893.03(d).

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5-15 and 17-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 29 May, 2008.

3. Applicant's election of example 1 (Species A in the Restriction/Election requirement mailed 4/29/2008) in the reply filed on 29, May, 2008 is acknowledged. The elected species reads on claims 1-4 and 16. Because applicant did not distinctly and specifically point out the supposed errors in the election of species requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Abstract***

4. The abstract of the disclosure is objected to because it is not a single paragraph. Correction is required. See MPEP § 608.01(b).

***Specification***

5. The disclosure is objected to because it lacks a brief description of the drawings. Correction is required. See MPEP § 608.01(f).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Ma et al. (US 6,916,554 B2).

Regarding claims 1 and 2, Ma et al. disclose a compound of instant formula (I) wherein M is Ir, n is 3, and Z is CR (column 18, table 1, compound 11).

Regarding claims 3 and 4, Ma et al. disclose all the claim limitations as set forth above. Additionally the reference discloses the compounds wherein a is 0 and b is 2 (column 18, table 1, compound 11).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-4, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi et al. (US 2001/0019782 A1) as evidenced by Moore et al. (US 5,484,922).

Regarding claim 1, Igarashi et al. disclose phenylpyridine complexes of iridium. The reference each ring may be substituted [0014]. The reference also discloses cyano is a suitable substituent [0050] and discloses it used on the phenyl ring of complex 1-31 (page13). However the reference does not explicitly disclose a compound of instant formula (I).

It would have been obvious to one of ordinary skill in the art at the time of the invention to make compounds similar in structure to those disclosed by Igarashi et al. in

order to provide a variety of compounds suitable for use as an emissive material in an organic light emitting device. The use of cyano on the phenyl ring of 2-phenylpyridine would be obvious to one of ordinary skill in the art given that Igarashi et al. disclose cyano as a suitable ligand [0050] and demonstrate its use on the phenyl of a similar complex (page 13, complex 1-31), which would also lead one of ordinary skill to reasonably expect cyano would result in compounds with similar properties suitable for the same purpose. It would further be obvious to one of ordinary skill in the art to substitute in the position para to the carbon-metal bond. The substituent effects of cyano in the para position is known to be similar to that of the meta position as evidenced by Moore et al. (column 8, line 60). Therefore one of ordinary skill in the art would recognize the para position as an equivalent to the meta position used by Igarashi et al., and therefore a suitable position for substitution.

Regarding claims 2-4 and 16, modified Igarashi et al. disclose all the claim limitations as set forth above. Additionally the reference discloses several compounds where n is 3, a is 0 or 1, and b is 0 ([0085], pages 10-13), meeting the requirements of the claims.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MHW

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794